1 Precautions
2 Product Overview
3 Connections
4 Screen Adjustment
5 Troubleshooting
6 Other Information



Manual Regulatory Reader

DLP PROJECTOR

Owner's Instructions

SP-A900B

The product color and shape may vary depending on the model.

※ To avoid injuries or damage to property, please read the following precautions carefully and use the product accordingly.

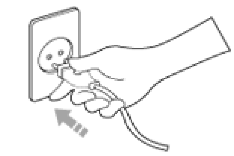
Warning	Failure to follow the instructions marked with this symbol may cause personal injury or even fatality.
Notice	Failure to follow the instructions marked with this symbol may cause personal injury or damage to the product or property.

| Power Related | Installation Related | Cleaning and Use Related |
TOP
MAIN

Power Related

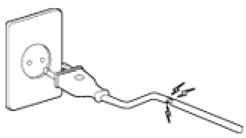
[The images here are for reference only, and are not applicable in all cases (or countries).]

Warning



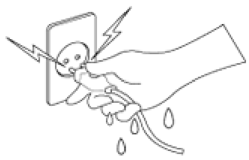
Insert the power plug firmly so that it does not come loose.

- When the connection is not firm, it may cause a fire.



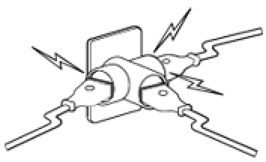
Do not use loose power outlets or damaged power cables.

- There is a danger of electric shock or fire.



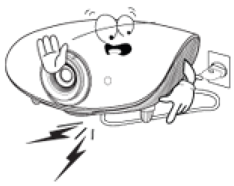
Under no circumstances touch the power plug with wet hands.

- There is a danger of electric shock.



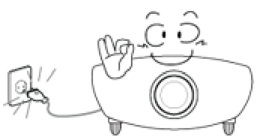
Do not plug multiple devices into a single wall outlet.

- There is a danger of fire.



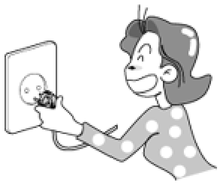
Do not bend the power cord excessively or place heavy objects on it.

- There is a danger of electric shock or fire.



Before moving the product, make sure the power is off and remove the power cord from the wall outlet. In addition, make sure all connection cables are disconnected from other devices before moving it.

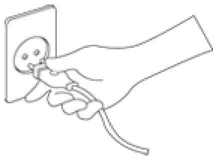
- Moving the product without disconnecting the power cord may damage the power cord and cause electric shock or fire.



To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

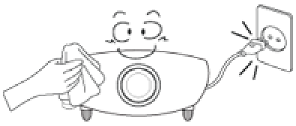
- There is a danger of electric shock or fire.

Notice



Always unplug the unit by holding the power plug. Pulling the power cable may damage the inside of it.

- There is a danger of fire.



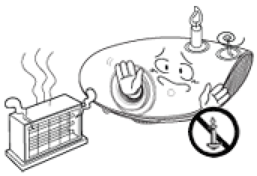
Unplug the power plug before cleaning the product.

- There is a danger of electric shock or fire.

| Power Related | Installation Related | Cleaning and Use Related |

Installation Related

Warning



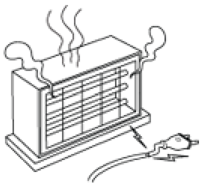
TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

- There is a danger of fire.



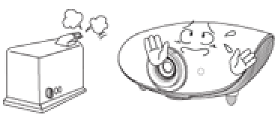
When installing the product in a cabinet or on a shelf, make sure the front end of the base does not protrude.

- Dropping the product may damage it or cause injury.



Keep the power cord away from heaters.

- The coating of the power cord may melt and cause electric shock or fire.

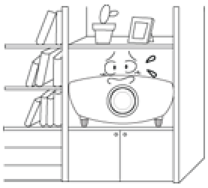


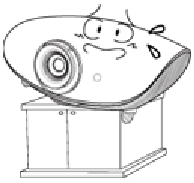
Do not install the product in locations exposed to oil, smoke, moisture or water (rainwater), or in a vehicle.

- There is a danger of electric shock or fire.

Do not install the product in locations with poor ventilation such as a bookshelf, closet, etc.

- An increase in the internal temperature may cause a fire.





Do not install on an unstable location, or on a stand smaller than the product.

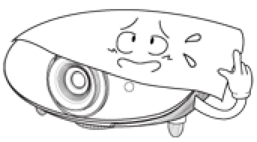
- If the product falls it may harm children. Install on a flat and stable location as the front part is heavy.



In case of thunder/lightning, disconnect the power cord from the wall outlet.

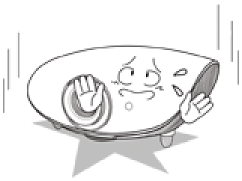
- There is a danger of electric shock or fire.

Notice



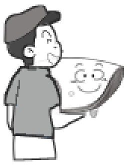
Make sure the product's vents are not blocked by a table cloth or curtain.

- An increase in the internal temperature may cause a fire.



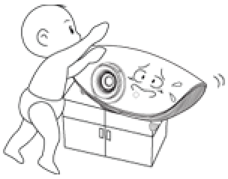
Place the product on the ground carefully.

- Doing so may cause damage or injury.



Do not drop the product while carrying it.

- Doing so may cause damage or injury.



Keep the product out of children's reach.

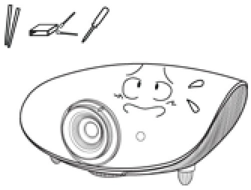
- If the product falls it may cause harm to children. Install on a flat and stable location as the front part is heavy.

| Power Related | Installation Related | Cleaning and Use Related |

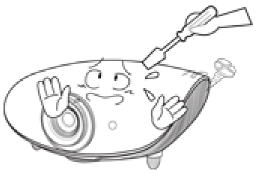
Cleaning and Use Related

Warning

Do not insert any metal objects such as a fork, chopsticks, wires, gimlets, or inflammable objects such as paper into the vents, the PC/COMPOSITE port, the Power port or the Battery port.



- This may cause electric shock or fire.
  If water or an alien substance enters the product, turn the product off, disconnect the power cord from a wall outlet and contact a Service Center.



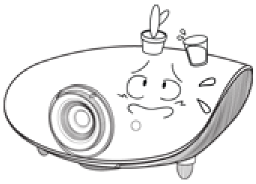
Do not disassemble, or attempt to fix or modify the product.

- When the product requires repairs, contact a Service Center.



Do not use or keep the product near flammable sprays or other such substances.

- There is a danger of fire or explosion.



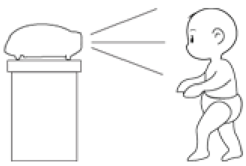
Do not place containers with water, vases, drinks, chemicals, small metal parts or heavy objects on the product.

- If water enters the product, it may cause electric shock, or fire and when heavy objects fall, it may cause injury.



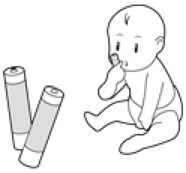
Do not let children place objects such as toys or cookies on the product.

- If a child tries to reach for any of these objects, the product may fall and cause harm.



Do not look directly at the light of the lamp nor project the picture onto eyes.

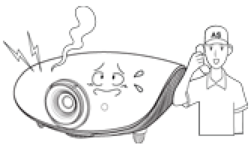
- This is dangerous especially for children.



When you remove batteries from the remote, be careful that they are not swallowed by children. Keep batteries out of the reach of children.

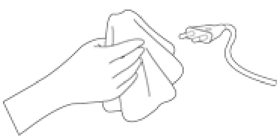
- If swallowed, see a doctor immediately.

Notice



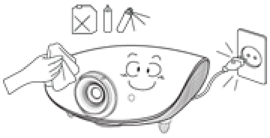
If the product emits smoke, unusual noise, or there is a burning smell,disconnect the power plug immediately, and contact a Service Center.

- There is a danger of electric shock or fire.



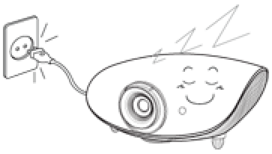
If the power plug pin or jack is exposed to dust, water or alien substances, clean it thoroughly.

- There is a danger of electric shock or fire.



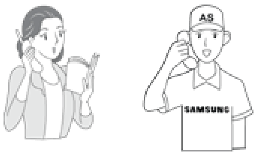
When cleaning the product, disconnect the power cord and wipe the product using a soft dry cloth.

- Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.

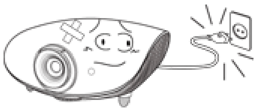


When not using the product for an extended period of time, disconnect the power plug.

- Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, leading to electric shock or fire.

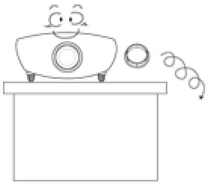


Do not install the product in places with heavy dust, chemical substances, high or low temperatures, high humidity, or where it will be operated for a long period continuously etc.



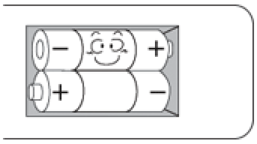
If the product is dropped or the casing is damaged, turn the product off and unplug the power cord.

- This may cause electric shock or fire. Contact a Service Center.



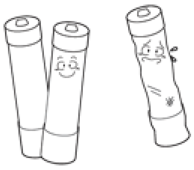
Take care not to lose the lens cover of the product.

- The lens could get damaged.



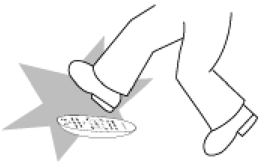
When replacing batteries, place the batteries in the correct +/− polarity position as indicated on battery holder.

- Incorrect polarity may cause a battery to break or leak and could lead to fire, injury, or contamination (damage).



Use only specified standard batteries. Do not use new and used batteries together.

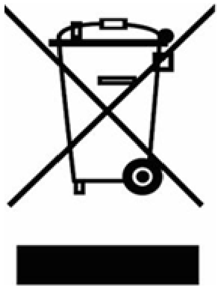
- Incorrect polarity may cause a battery to break or leak and could lead to fire, injury, or contamination (damage).



Make sure to place your remote control on a table or desk.

- If you step on the remote control, you may fall and hurt yourself or the product may be damaged.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) - Europe only



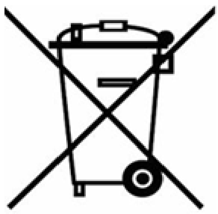
(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household waste at the end of its working life. To prevent possible harm to the environment or damage to health from uncontrolled waste disposal, please separate this from other types of waste and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product – alleen voor Europa



(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.



| Product Features | Product Views | Remote Control | Product Specifications |

Product Features

TOP
MAIN

01 Optical engine with advanced DLP technology

- Full 1920x1080 HD panel.
- 6 segment color wheel to implement optimal colors.
- 300W Lamp designed to improve luminance

02 Vivid colors

- Quality picture tuning focused on improving color - this unit aims at realizing color coordinates that meet broadcasting standards on video production.

03 Minimized fan noise and light leakage

- The airflow and fan installation structure are optimized to minimize fan noise and beam leakage.

04 Various Input Ports

- Abundant input terminals are available, such as two HDMI (supporting HDCP) terminals and two component terminals, etc., to enhance connectivity with peripheral devices.

05 User adjustments

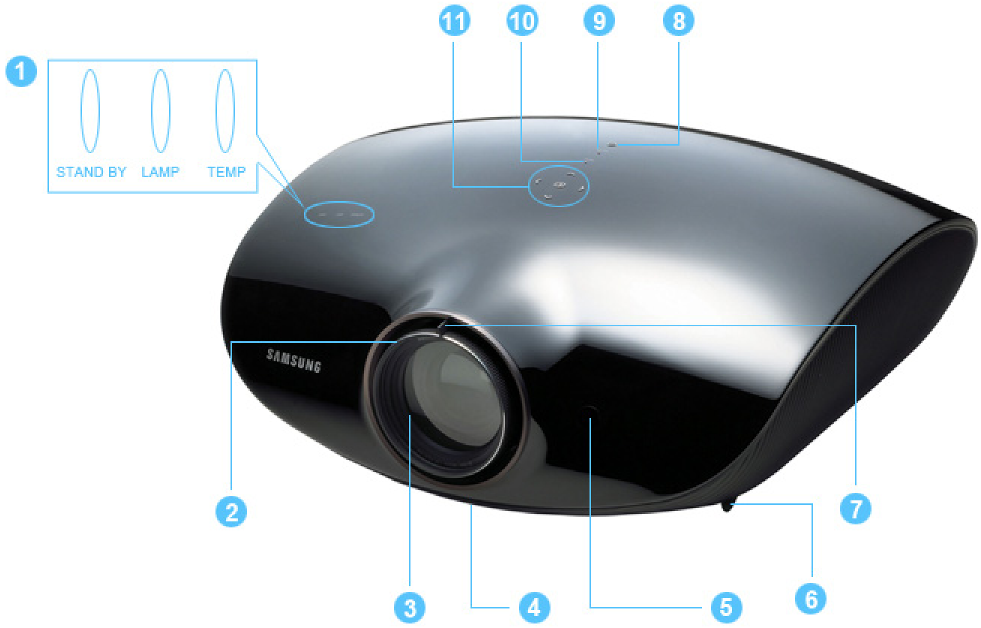
- This unit allows adjustment of each input port.
- The unit has a reference pattern that can be used for positioning and adjustment.
- For the user's convenience, a backlight for the remote control is provided for use in dark surroundings.

| Product Features | Product Views | Remote Control | Product Specifications |

Product Views

Front/Upper Side

The product color and shape may vary depending on the model.



1. Indicators
   - TEMP (Red LED)
   - LAMP (Blue LED)
   - STAND BY (Blue LED)

※ Refer to the LED Indications.

2. Focus Ring
   Used for Focus Adjustment.

3. Lens

4. Lens Position Moving Dial
   You can adjust screen images up and down within the lens range.

※ Refer to Adjusting the Lens Position Moving Dial.

5. Remote Control Signal Receiver

6. Adjustable Feet
   You can adjust the screen position by moving the adjustable feet up and down.

7. Zoom Knob
   Used to enlarge or reduce image size.

8. POWER(⏻) Button
   Used to turn the projector on or off.

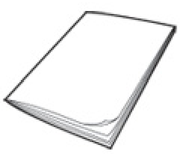
9. SOURCE Button
   Used to select input signals from the external sources.

10. MENU Button
   Use this button to enter or exit a menu or to move forward in a menu.

11. Select and Move Button(↵ / ＜∧＞∨)
   Use this button to move to or select an item within a menu.

The buttons on the top of the projector are touch buttons.
Touch them lightly with your fingers to use them.

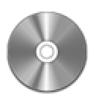
Package Contents



Quick Installation Guide



Warranty
(Not available in all locations)



User Manual CD



Power Cable



Remote Control/ 2 Batteries
(Not available in all locations)



Cleaning Cloth

LED Indications

●:Light is On ◐:Light is Blinking ○:Light is Off

STAND BY	LAMP	TEMP	Information
●	○	○	If you press the POWER button on the remote control or projector, the screen appears within 30 seconds.
●	●	○	The projector is in normal operating condition.
●	◐	○	This state appears when the projector is preparing an operation after the POWER button on the projector or the remote control has been pressed.
○	◐	○	The POWER button is pressed to turn off the projector, and the cooling system is in operation to cool off the inside of the projector. (Lasts for about 1 minute and 30 seconds)
◐	○	◐	Refer to Action 1 below if the cooling fan inside the projector is not in normal operation condition.
○	◐	◐	Refer to Action 2 below if the lamp cover protecting the lamp unit is not closed properly.
○	○	◐	Power is turned off automatically when temperature inside of the projector goes beyond the control limit. Refer to Action 3.
●	◐	◐	A problem has occurred when operating the DDP IC in the product. Refer to Action 4.
◐	◐	◐	A problem has occurred with the operation of the lamp. Refer to Action 5.
●	◐	●	The lifetime of the lamp has expired. Refer to Action 6.
◐	◐	○	The memory in the product is not operating normally. Contact a service center.
◐	◐	●	The power for the product is not operating normally. Contact a service center.
◐	●	◐	A problem has occurred when operating the color wheel in the product. Refer to Action 4.

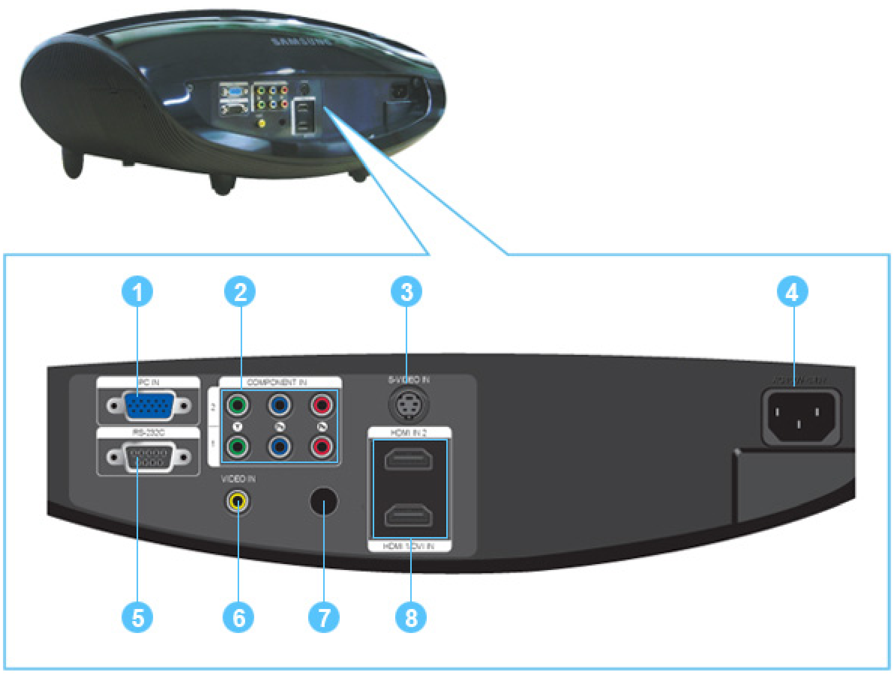
Clearing Indicator Problems

Classification	State	Measures
Action 1	When the cooling fan system is not in normal operating condition.	If the symptom remains even after disconnecting and then reconnecting the power cord and turning the projector on again, contact your product provider or our service center.
Action 2	When the lamp cover protecting the lamp unit is not properly closed or the sensor system is not in normal operating condition.	Check whether the screws at the bottom side of the projector are fastened correctly. If they are abnormally fastened, contact your product distributor or service center.

Action 3	When temperature inside of the projector becomes too high.	Adjust the installation state of your projector by referring to the Installation Precautions section listed above. Cool down your projector sufficiently and then operate it again. If the same problem occurs continually, contact your product distributor or service center.
Action 4	When the DDP IC or color wheel fails to operate.	Disconnect and reconnect the power cord and start the projector again. If the same symptom still occurs, contact your product distributor or service center.
Action 5	The lamp malfunctions after power turns off abnormally or after powering on right after turning off the projector.	Turn the power off, wait for a sufficient amount of cooling time and then turn the power on to operate. If the same problem occurs continually, contact your product distributor or service center.
Action 6	When the screen becomes darker	Check the lamp usage time on the Information Display screen. If you need to replace the lamp, contact your product distributor or service center.

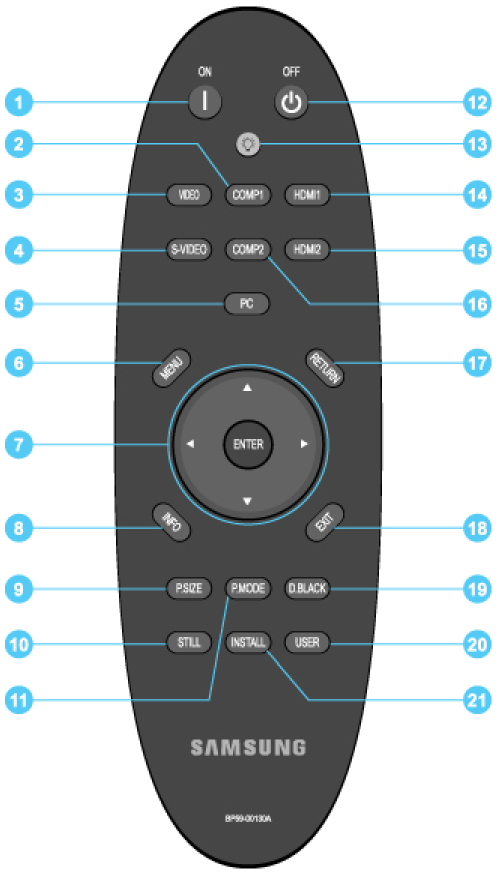
This Projector uses a cooling fan system to keep the unit from overheating. Operation of the cooling fan may cause noise, which does not affect the product performance and is part of normal operation.

Rear Side



1. PC IN Input port
2. COMPONENT IN 1/2 Input ports
3. S-VIDEO IN Input port
4. POWER Input port
5. RS-232C port
   (For service input terminals)
6. VIDEO IN Input port
7. Remote Control Signal Receiver
8. HDMI IN 2, HDMI 1/DVI IN Input port

Remote Control



1. ON (I) Button
2. COMP1 Button
3. VIDEO Button
4. S-VIDEO Button
5. PC Button
6. MENU Button
7. Move (▲ ▼ ◀ ▶)/ENTER Button
8. INFO Button
9. P.SIZE Button
10. STILL Button
11. P.MODE Button
12. OFF (⏻) Button
13. LIGHT (💡) Button
14. HDMI1 Button
15. HDMI2 Button
16. COMP2 Button
17. RETURN Button
18. EXIT Button
19. D.BLACK Button
20. USER Button
21. INSTALL Button

1. ON (I)
   Used to turn on the projector.

2. COMP1
   Used to switch to COMPONENT 1 Mode.

3. VIDEO
   Used to switch to Video Mode.

4. S-VIDEO
   Used to switch to S-VIDEO Mode.

5. PC
   Used to switch to PC Mode.

6. MENU
   Used to display Menu Screen.

7. Move(▲ ▼ ◀ ▶)/ENTER
   Used to move to or select each menu item.

8. INFO
   Used to check source signals, picture setup, PC screen adjustment and lamp lifespan.

9. P.SIZE

Used to adjust the size of picture screen.

10. STILL
    Used to see still images.

11. P.MODE
    Used to select Picture Mode.

12. OFF (⏻)
    Used to turn off the projector.

13. LIGHT ( )
    Used to operate remote control in dark room.

14. HDMI1
    Used to switch to HDMI 1 Mode.

15. HDMI2
    Used to switch to HDMI 2 Mode.

16. COMP2
    Used to switch to COMPONENT 2 Mode.

17. RETURN
    Returns to the previous menu.

18. EXIT
    Used to make Menu Screen disappear.

19. D.BLACK
    Used to adjust the screen brightness and contrast by adjusting the iris in the optical system.

20. USER
    Used to select Picture User Adjust Mode.

21. INSTALL
    Used to flip or reverse the projected image.

Product Specifications

Design and specifications of the product may be modified without prior notice for better performance.

Specifications

Model		SP-A900B
Panel	Size	24.1 mm / 0.9 inch
	Resolution	1920 x 1080
	Manufacturer	Texas Instrument
Lamp	Type	300 W UHP
	Life Time	2000 Hrs
	Manufacturer	Philips
Color		62.2 M (1920 x 1080 x 3 x 10 bit)
Resolution	Optimum resolution	1920 x 1080 @ 60 Hz
	Maximum resolution	1920 x 1200
Input video signal		Video, S-Video, Component, Analog PC, HDMI
Input synchronization signal		Separate H/V sync, TTL

Maximum Pixel Clock			162 MHz
Diagonal screen size			1016 mm ~ 7620 mm (16:9, Diagonal)
Projection Range			1.5 m ~ 14 m
Power	Power Consumption		Less than 410 W
	Voltage		110/220 Vac +/-10 %, 50/60 Hz +/-3 Hz
Noise			Theater : 24dB, Bright : 30dB
Dimensions			431.3 mm(W) x 468.5 mm(D) x 198.8 mm(H) 17.0 inches(W) x 18.4 inches(D) x 7.8 inches(H)
Weight			9.8 Kg / 21.6 lb
Key Features	Brightness		1,000 ANSI
	Contrast		12000:1 (Full On / Off)
User Environment	Temperature and Humidity	Operating	Temperature 50 °F ~ 104 °F (10 °C ~ 40 °C), Humidity (10 % ~ 80 %)
		Storage	Temperature -4 °F ~ 113 °F (-20 °C ~ 45 °C) , Humidity (5 % ~ 95 %)

This Class B equipment is designed for home and office use. The equipment has been registered regarding EMI for residential use. It may be used in all areas. Class A is for office use. Class A is for business while class B emits less electromagnetic waves than class A.

The DMD Panel used in DLP Projectors consists of several hundred thousand micro mirrors. As with other visual display elements, the DMD Panel may include a few bad pixels. Samsung and the DMD Panel manufacturer have a rigid, bad pixel identification and limitation procedure in place and products will not exceed the maximum number of bad pixels set by our standards. Rarely, non-displayable pixels may exist, however it does not affect the picture quality nor the lifespan of the product.

Supported Display Modes

Input Source	Resolution (HxV)	Total Resolution	Horizontal Sync		Vertical Sync		Pixel Frequency [MHz]	Sync Type
			Frequency [kHz]	polarity	Frequency [Hz]	polarity		
PC, DVI	640x350	800x449	31.5	P	70.1	N	25.2	Sep.
PC		832x445	37.9	P	85.1	N	31.5	Sep.
	640x400	832x445	37.9	N	85.1	P	31.5	Sep.
PC, DVI	640x480	800x525	31.5	N	59.9	N	25.2	Sep.
		800x525	31.5	N	60.0	N	25.2	Sep.
PC		816x500	35.0	N	70.0	N	28.6	Sep.
		832x520	37.9	N	72.8	N	31.5	Sep.
		840x500	37.5	N	75.0	N	31.5	Sep.
		832x509	43.3	N	85.0	N	36.0	Sep.
PC, DVI	720x400	900x449	31.5	N	70.1	P	28.3	Sep.
PC	800x600	1024x625	35.2	P	56.3	P	36.0	Sep.
PC, DVI		1056x628	37.9	P	60.3	P	40.0	Sep.
PC		1040x625	43.8	N	70.0	N	45.5	Sep.
		1040x666	48.1	P	72.2	P	50.0	Sep.
		1056x625	46.9	P	75.0	P	49.5	Sep.
		1048x631	53.7	P	85.1	P	56.3	Sep.
PC, DVI	848x480	1088x517	31.0	P	60.0	P	33.8	Sep.
	1024x768	1344x806	48.4	N	60.0	N	65.0	Sep.
		1328x806	56.5	N	70.1	N	75.0	Sep.
		1360x801	57.7	N	72.0	N	78.4	Sep.
		1312x800	60.0	P	75.0	P	78.8	Sep.
		1376x808	68.7	P	85.0	P	94.5	Sep.
	1152x864	1520x897	53.8	N	60.0	P	81.8	Sep.
		1536x900	63.0	N	70.0	N	96.8	Sep.
		1536x901	64.9	N	72.0	N	99.6	Sep.
		1600x900	67.5	P	75.0	P	108.0	Sep.

	1280x720	1664x748	44.8	N	59.9	P	74.5	Sep.
		1696x750	52.5	N	70.0	N	89.0	Sep.
		1696x751	54.1	N	72.0	N	91.7	Sep.
		1696x755	56.5	N	74.0	P	95.8	Sep.
	1280x768	1664x798	47.8	N	59.9	P	79.5	Sep.
		1696x805	60.3	N	74.9	P	102.3	Sep.
PC		1712x809	68.6	N	84.8	P	117.5	Sep.
	1280x960	1800x1000	60.0	P	60.0	P	108.0	Sep.
		1728x999	69.9	N	70.0	P	120.8	Sep.
		1728x1001	72.1	N	72.0	N	124.5	Sep.
		1728x1005	75.2	N	74.9	P	130.0	Sep.
		1728x1011	85.9	P	85.0	P	148.5	Sep.
PC, DVI	1280x1024	1688x1066	64.0	P	60.0	P	108.5	Sep.
		1728x1066	74.6	N	70.0	N	128.9	Sep.
		1728x1067	76.8	N	72.0	N	132.8	Sep.
		1688x1066	80.0	P	75.0	P	135.0	Sep.
		1728x1072	91.1	P	85.0	P	157.5	Sep.
	1360x768	1792x795	47.7	P	60.0	P	85.5	Sep.
PC	1400x1050	1864x1089	65.3	N	60.0	P	121.8	Sep.
		1896x1099	82.3	N	74.9	P	156.0	Sep.
	1440x900	1904x934	55.9	N	59.9	P	106.5	Sep.
		1936x942	70.6	N	75.0	P	136.8	Sep.
		1952x948	80.4	N	84.8	P	157.0	Sep.
	1600x1200	2160x1250	75.0	P	60.0	P	162.0	Sep.
PC, DVI	1920x1080	2080x1111	66.6	P	59.9	N	138.5	Sep.
PC	1920x1200	2080x1235	74.0	P	60.0	N	154.0	Sep.
	720x480	858x525	31.5	N	59.9	N	27.0	Sep.
		858x525	31.5	N	60.0	N	27.0	Sep.
	720x576	864x625	31.3	N	50.0	N	27.0	Sep.
	1280x720	1980x750	37.5	P	50.0	P	74.3	Sep.
		1650x750	45.0	P	59.9	P	74.2	Sep.
PC, HDMI(DVI)		1650x750	45.0	P	60.0	P	74.3	Sep.
	1920x1080	2640x1125	28.1	P	50.0	P	74.3	Sep.
	1920x1080i	2200x1125	33.7	P	59.9	P	74.2	Sep.
		2200x1125	33.8	P	60.0	P	74.3	Sep.
	1920x1080	2640x1125	56.3	P	50.0	P	148.5	Sep.
		2200x1125	67.4	P	59.9	P	148.4	Sep.
		2200x1125	67.5	P	60.0	P	148.5	Sep.
	720x480i	858x525	15.7	N	59.9	N	13.5	Sep.
HDMI		858x525	15.8	N	60.0	N	13.5	Sep.
	720x576i	864x625	15.6	N	50.0	N	13.5	Sep.
	720x480	858x525	31.5	N	59.9	N	27.0	SOY
		858x525	31.5	N	60.0	N	27.0	SOY
	720x576	864x625	31.3	N	50.0	N	27.0	SOY
	1280x720	1980x750	37.5	P	50.0	P	74.3	SOY
		1650x750	45.0	P	59.9	P	74.2	SOY
		1650x750	45.0	P	60.0	P	74.3	SOY
	1920x1080	2640x1125	28.1	P	50.0	P	74.3	SOY
Component	1920x1080i	2200x1125	33.7	P	59.9	P	74.2	SOY
		2200x1125	33.8	P	60.0	P	74.3	SOY
	1920x1080	2640x1125	56.3	P	50.0	P	148.5	SOY
		2200x1125	67.4	P	59.9	P	148.4	SOY
		2200x1125	67.5	P	60.0	P	148.5	SOY
	720x480i	858x525	15.7	N	59.9	N	13.5	SOY
		858x525	15.8	N	60.0	N	13.5	SOY
	720x576i	864x625	15.6	N	50.0	N	13.5	SOY

Supported Resolution/Size Modes

O : Size & Overscan can be configured, x : Size & Overscan cannot be configured, △: Size can be configured

Source			Picture Size					
Input	Type	Mode	16:9	Zoom1	Zoom2	4:3	Wide fit	Anamorphic
HDMI	HD	1080p	O	O	O	O	O	O
		1080i	O	O	O	O	O	O
		720p	O	O	O	O	O	O
	SD	576p	O	O	O	O	x	O
		480p	O	O	O	O	x	O
		576i	O	O	O	O	x	O
		480i	O	O	O	O	x	O
Component	HD	1080p	O	O	O	O	O	O
		1080i	O	O	O	O	O	O
		720p	O	O	O	O	O	O
	SD	576p	O	O	O	O	x	O
		480p	O	O	O	O	x	O
		576i	O	O	O	O	x	O
		480i	O	O	O	O	x	x
Video & S- Video	SD	576i	△	O	O	△	x	x
		480i	△	O	O	△	x	x
PC	HD	1080p	△	x	x	△	x	x
		1080i	△	x	x	△	x	x
		720p	△	x	x	△	x	x
	SD	576p	△	x	x	△	x	x
		480p	△	x	x	△	x	x
		576i	△	x	x	△	x	x
		480i	△	x	x	△	x	x
	PC	16:9 Mode	△	x	x	△	x	x
		4:3 Mode	△	x	x	△	x	x

Picture Position Modes

Overscan : Off

Source			Picture Position (H/V)					
Input	Type	Mode	16:9	4:3	Zoom 1	Zoom 2	Wide fit	Anamorphic
HDMI	HD	1080p	x	x	O	O	O	O
		1080i	x	x	O	O	O	O
		720p	x	x	O	O	O	O
	SD	576p	x	x	O	O	x	O
		640 x 480p	x	x	O	O	x	O
		720 x 480p	x	x	O	O	x	O
		576i	x	x	O	O	x	O
		480i	x	x	O	O	x	O
	PC	1280 x 1024/60	x	x	x	x	x	x
		1024 x 768/60	x	x	x	x	x	x
		800 x 600/60	x	x	x	x	x	x
		720 x 400/70	x	x	x	x	x	x
		640 x 350/70	x	x	x	x	x	x
Component	HD	1080p	O	O	O	O	O	O
		1080i	O	O	O	O	O	O
		720p	O	O	O	O	O	O
	SD	576p	x	x	O	O	x	O
		480p	x	x	O	O	x	O
		576i	x	x	O	O	x	O
		480i	x	x	O	O	x	O
Video & S-Video	SD	576i	x	x	O	O	x	x
		480i	x	x	O	O	x	x

Overscan : On

Source			Picture Position (H/V)					
Input	Type	Mode	16:9	4:3	Zoom 1	Zoom 2	Wide fit	Anamorphic

HDMI	HD	1080p	x	x	O	O	O	O
		1080i	x	x	O	O	O	O
		720p	x	x	O	O	O	O
	SD	576p	x	x	O	O	x	O
		640 x 480p	x	x	O	O	x	O
		720 x 480p	x	x	O	O	x	O
		576i	x	x	O	O	x	O
		480i	x	x	O	O	x	O
	DVI	1280 x 1024/60	x	x	x	x	x	x
		1024 x 768/60	x	x	x	x	x	x
		800 x 600/60	x	x	x	x	x	x
		720 x 400/70	x	x	x	x	x	x
		640 x 350/70	x	x	x	x	x	x
Component	HD	1080p	O	O	O	O	O	O
		1080i	O	O	O	O	O	O
		720p	O	O	O	O	O	O
	SD	576p	O	O	O	O	x	O
		480p	O	O	O	O	x	O
		576i	O	O	O	O	x	O
		480i	O	O	O	O	x	O
Video & S- Video	SD	576i	x	x	O	O	x	x
		480i	x	x	O	O	x	x
PC	HD	1080p	O	O	O	O	O	x
		1080i	O	O	O	O	O	x
		720p	O	O	O	O	O	x
	SD	576p	O	O	O	O	O	x
		480p	O	O	O	O	O	x
		576i	x	x	x	x	x	x
		480i	x	x	x	x	x	x
	PC	16:9 Mode	O	O	x	x	x	x
		4:3 Mode	O	O	x	x	x	x



Basic Settings

Installing the Projector

Install the projector so that the beam from the projector is perpendicular to the screen.

- Place the projector so that the lens is at the center of the screen.
  If the screen is not vertically installed, the picture on the screen may not be a rectangle.
- Do not install the screen in bright surroundings. If the screen is too bright, the picture on the screen will not be displayed clearly.
- When installing the screen in bright surroundings, use curtains.
- You can install the projector in the following locations: Front-Floor / Front-Ceiling / Rear-Floor / Rear-Ceiling.
  (To view the installation position settings)

01 To view the picture when installing the projector behind the screen,

Install a semi-transparent screen.
Select Menu > Setup > Install > Rear-Floor

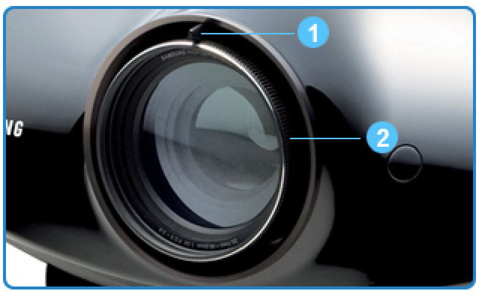


02 To view the picture when installing the projector in the front of the screen,

Install the projector at the side where you are watching the screen.
Select Menu > Setup > Install > Front-Floor



Zoom and Focus Adjustment



1 Zoom Knob 2 Focus Ring

01 You can adjust the size of image within zoom range by manipulating the Zoom Knob.

02 Focus the picture on the screen using the Focus Ring.

- If your product is installed at a location out of the specified projection distance (refer to Screen Size and Projection Distance), the focus cannot be adjusted correctly.

Leveling with Adjustable Feet



For level placing of the projector, adjust the Adjustable Feet of the projector.

- You may adjust the level of the projector up to 3 degrees.
- Depending on the position of the projector, Keystone distortion of image may appear.

Adjusting the Lens Position Moving Dial





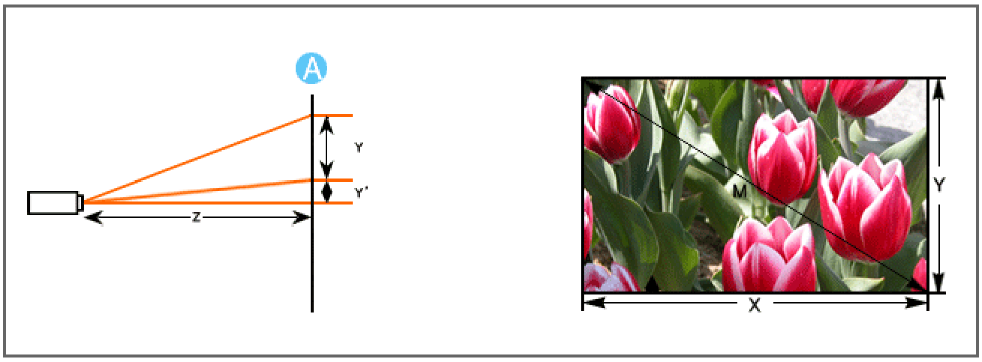
Move the picture projected on the screen up and down within the lens range by turning the Lens Shift Dial on the top side of the projector with your fingers.

Screen Size and Projection Distance

Install the projector on a flat, even surface and level the projector using the adjustable feet to realize optimal picture quality. If images are not clear, adjust them using the Zoom Knob or Focus Ring, or move the projector forward and backward.

Screen size (M:inch)	Horizental (X:mm)	Vertical(Y:mm)	Min(Z:mm)	Max(Z:mm)	Offset (Y':mm)
40	886	498	1983.6	1523.1	50
50	1107	623	2479.5	1903.9	62
60	1328	747	2975.3	2284.6	75
70	1550	872	3471.2	2665.4	87
80	1771	996	3967.1	3046.2	100
90	1992	1121	4463	3427	112
100	2214	1245	4958.9	3807.7	125
110	2435	1370	5454.8	4188.5	137
120	2657	1494	5950.7	4569.3	149
130	2878	1619	6446.6	4950.1	162
140	3099	1743	6942.5	5330.8	174
150	3321	1868	7438.4	5711.6	187
160	3542	1992	7934.3	6092.4	199
170	3763	2117	8430.2	6473.2	212
180	3985	2241	8926	6853.9	224
190	4206	2366	9421.9	7234.7	237
200	4428	2491	9917.8	7615.5	249
210	4649	2615	10413.7	7996.3	262
220	4870	2740	10909.6	8377	274
230	5092	2864	11405.5	8757.8	286
240	5313	2989	11901.4	9138.6	299
250	5535	3113	12397.3	9519.3	311
300	6641	3736	14876.7	11423.2	374

This projector is designed to show images optimally on a 100 ~ 120 inch sized screen.

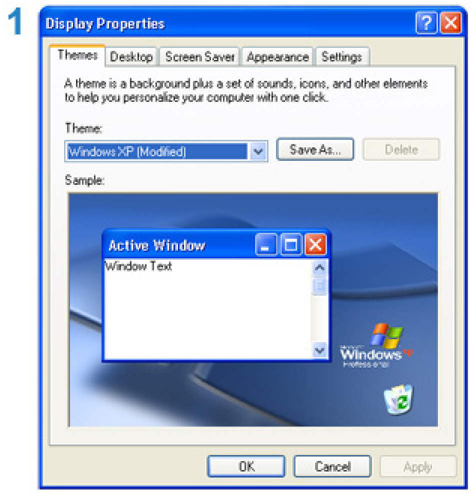


A. Screen

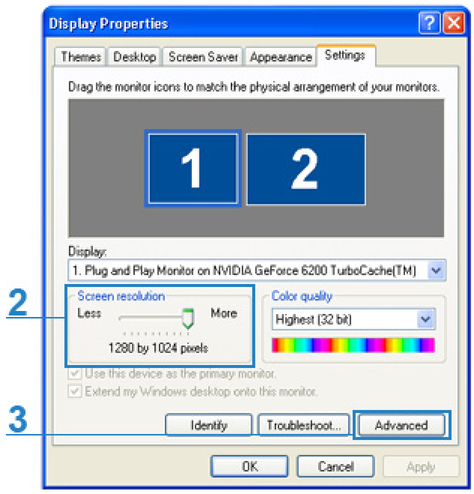
- Z: Throw Distance
- Y': Distance from Lens Center to Image Bottom

Setting up the PC Environment – Check the following items before connecting your PC to your projector.

1. Click the right mouse button on the Windows desktop and click on [Properties].
   <Display Properties> tab will appear.

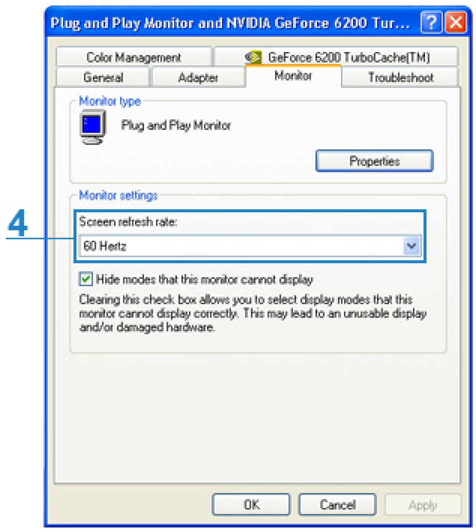


2. Click on [Settings] tab and set the <Screen resolution> by referring to <Resolution> described in the display mode table supported by this projector.
   You do not have to change <Color quality> setup.



3. Press the [Advanced] button.
   Another property window will appear.

4. Click on [Monitor] tab and set the <Screen refresh rate> by referring to <Vertical Frequency> described in the Supported Resolution/Size Modes table.
   Set up both the vertical and horizontal frequency instead of <Screen refresh rate>.



5. Click the [OK] button to close the window, and click the [OK] button of the <Display Properties> window to close the window.
   The computer may restart automatically.

6. Shut down the PC and connect to the projector.

- Process might vary depending on the type of computers or Windows versions.
  (For example, [Properties] appears instead of [Properties (R)] as shown in 1.)
- This appliance supports up to 32 bits per pixel in Color quality when it is used as a PC monitor.
- Projected images may differ from the monitor depending on monitor manufacture or Windows versions.
- When connecting the projector to a PC, check that PC setup complies to display settings supported by this

projector. If not, there may be signal problems.

| Basic Settings | Connecting the Power | Connecting to video equipment |

Connecting the Power



1. Rear of Projector

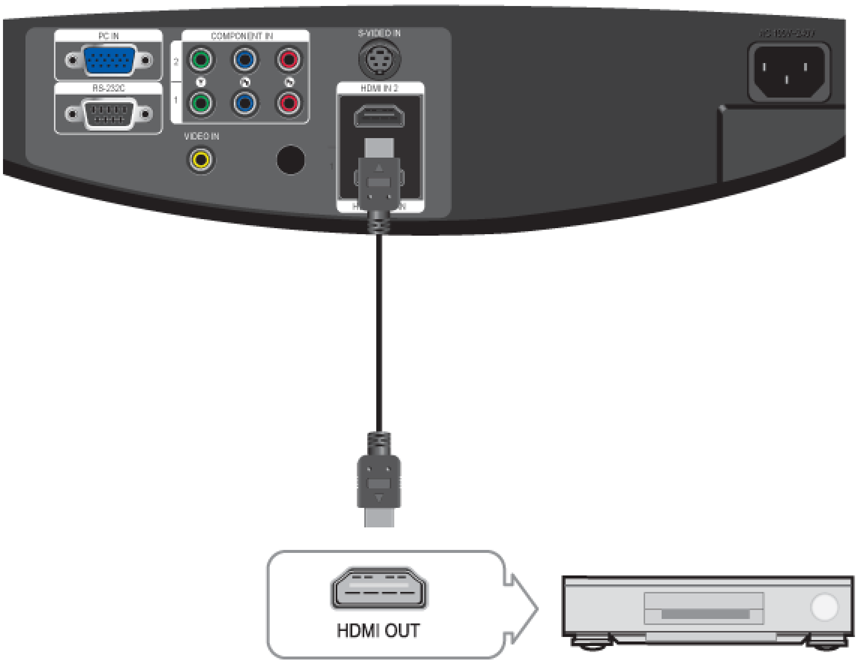
01 Plug the power cord into the power terminal on the rear side of the projector.

When used outside of the U.S., HAR cord with fittings of an approved agency may be used.

| Basic Settings | Connecting the Power | Connecting to video equipment |

Connecting to video equipment

Connecting a DVD player/Cable/Satellite Box to HDMI/DVI



01 - Connecting using a HDMI/DVI cable

Connect the [HDMI 1/DVI IN] terminal on the back of the projector and the DVI output terminal of the DVD player/Cable/Satellite box using a HDMI/DVI cable.

- Connecting using a HDMI cable

Connect the [HDMI 1/DVI IN] or [HDMI IN 2] terminal on the back of the projector and the HDMI output terminal of the DVD player/Cable/Satellite box using a HDMI cable.

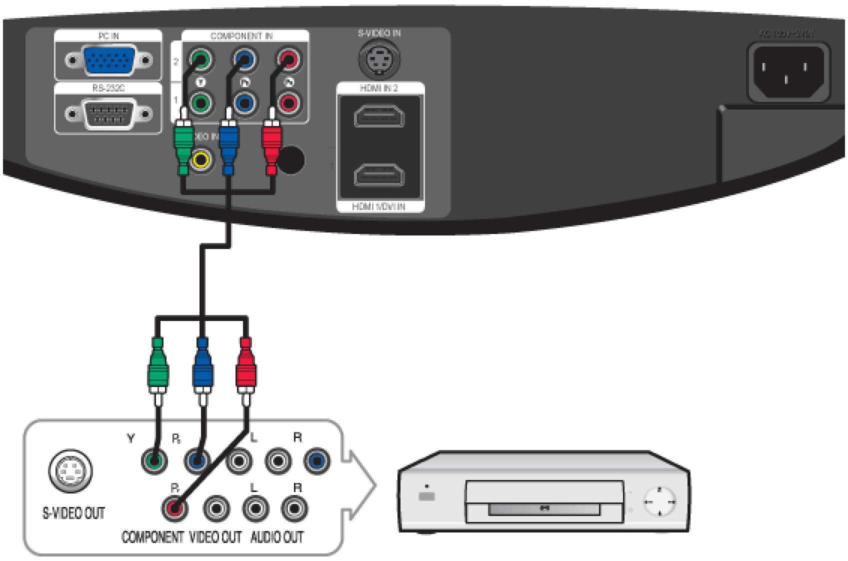
02 When the connection is finished, connect the power of your projector and DVD player/Cable/Satellite box.

Using the Projector

01 Turn on the projector and press the [HDMI1] button to select <HDMI 1>.

02 Press the [HDMI2] button to select <HDMI 2> if [HDMI2] is connected.
If "HDMI" mode cannot be selected, check whether the HDMI cable is connected correctly.

Connecting a DVD player/Cable/Satellite Box via Component



01 Connect the [COMPONENT IN 1 (Y/PB/ PR)] or [COMPONENT IN 2 (Y/PB/ PR)] input port at the back of the projector to the Component port at the back of the DVD player/Cable/Satellite box with the Component cable.

02 When the connection is finished, connect the power of your projector and DVD player/Cable/Satellite box.

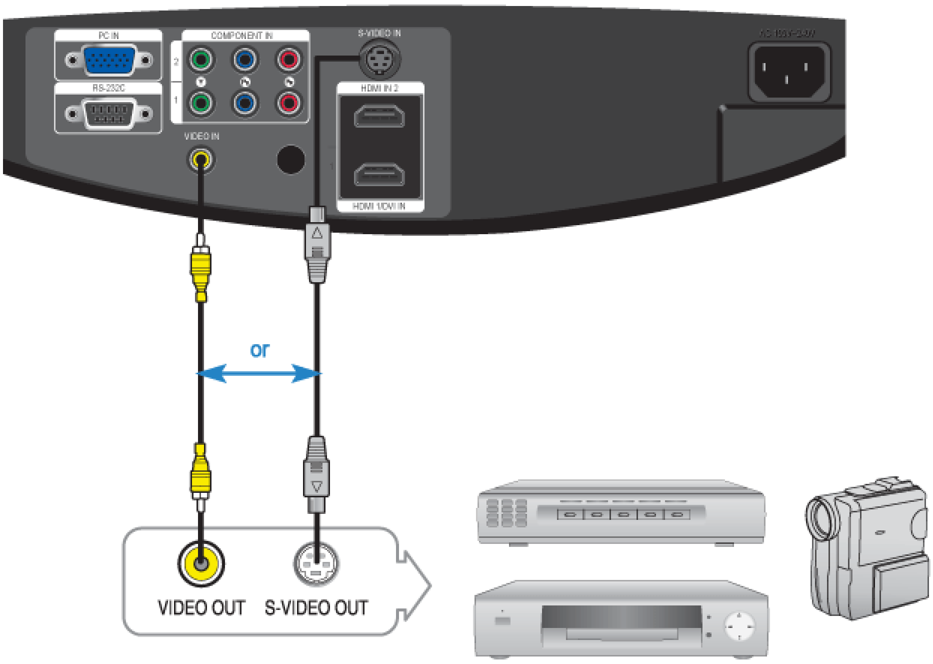
Using the Projector

01 Turn on the projector and press the [COMP1] button to select <Component 1>.

02 Press the [COMP2] button to select <Component 2> if [COMPONENT IN 2] is connected.
When Component Mode is not available, check that the component cables are in place.

Component Ports are marked as (Y/PB/PR), (Y, B-Y, R-Y) or (Y, Cb, Cr), depending on the manufacturer.

Connecting to VCR/Camcorder



01 Connect [VIDEO IN(yellow)] input port of the projector to the VIDEO (yellow) OUT port of video equipment using the video cable.

- If the video equipment has S-VIDEO OUT port, connect it to [S-VIDEO IN] input port of the projector.
  Using the S-VIDEO connection, provides a higher visual quality.

02 When finishing connecting the devices, connect the power of the projector and the VCR.

Using the Projector

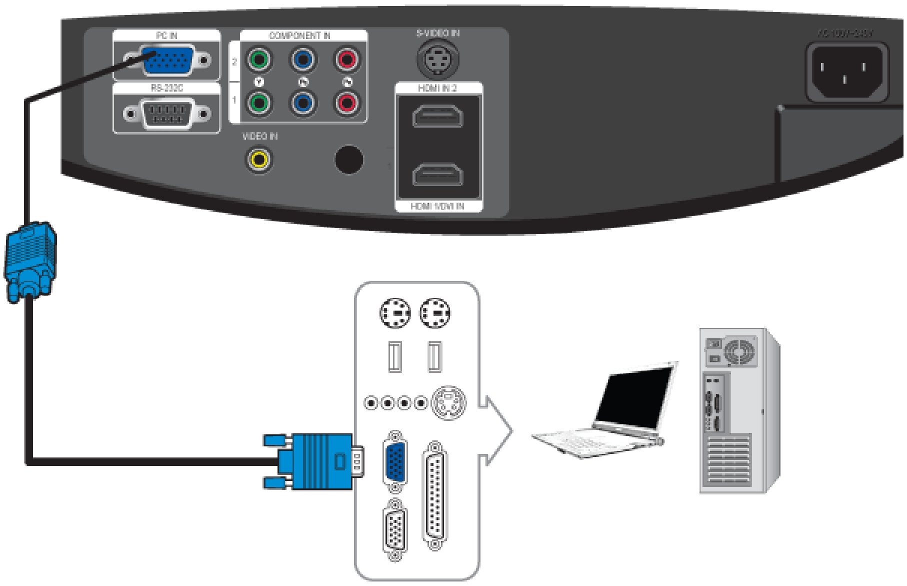
01 Turn on the projector and press the [Video] button to select <Video>.

or

02 Press the [S-VIDEO] button to select S-Video.

- Check that the projector and the video equipment are turned off before connecting cables.
- This projector does not support sound. (Separate audio system is needed for sound.)

Connecting to PC



01 Connect [PC IN] port on the rear side of the projector to the monitor output port of the PC using a PC video cable.

02 When connections are all completed, connect both power codes of the projector and the PC.

This product supports plug and play and therefore, if you use Window XP you do not need to setup the driver on your PC.

Using the Projector

01 Turn on the projector and press the [PC] button to select <PC>.
If PC Mode is not available, check PC video cable is in place.

02 Turn on the PC and set the PC Environment when necessary.

03 Adjust the screen.(Auto Adjustment)

Sound comes out from PC speakers.



| Input | Picture | Setup | Option |

Input

TOP
MAIN





* Click the Play( )/Stop( ) button in the table below to view the video file.

Screen Adjustment	Description	Play/Stop
Source List	You can select a device connected to the projector to display. 1) Component 1 5) PC 2) Component 2 6) HDMI 1 3) S-Video 7) HDMI 2 4) Video	
Edit Name	You can edit the names of devices connected to the projector. 1) Component 1 5) PC 2) Component 2 6) HDMI 1 3) S-Video 7) HDMI 2 4) Video	

| Input | Picture | Setup | Option |

Picture





* Click the Play( )/Stop( ) button in the table below to view the video file.

Screen Adjustment	Description	Play/Stop
Mode	Select a screen state which is customized to your projector or change the screen mode as required. 1) Mode - Dynamic Select this if you want the screen quality to be clearer than standard screen quality. - Standard You can comfortably view the projection screen if the surrounding is somewhat bright. - Movie1, Movie2 Select this if your surroundings are dark. This saves energy and reduces eye fatigue. - User1, User2, User3 Select this if you want to view the screen in your customized screen Mode. You can set this in Mode-Save.	Mode
	2) Contrast : Used to adjust the contrast between the object and the background. 3) Brightness : Used to adjust brightness of the entire picture. 4) Sharpness : Used to adjust the sharpness of the picture. ▶ [PC] mode is not supported. 5) Color : Used to adjust color lighter or darker. 6) Tint : Used to obtain more natural color of objects using Green or Red enhancement. ▶ You can only adjust Tint in [S-Video] and [Video] modes.	Contrast Brightness Sharpness Color Tint
	7) Color Temperature : You can change tint of the entire screen to suit your needs. - 5500K : Used to deliver optimal image quality for black-and-white films. - 6500K : This temperature is used for most video productions. It is the default setting for Movie1, and may deliver the most precise tint. - 8000K : This color temperature is appropriate for very bright places and is the defaut setting for Dynamic Picture Mode. The sharpness and brightness are emphasized. - 9300K : The color temperature appropriate to very bright places such as a shop.	Color Temperature R-Gain G-Gain B-Gain R-Offset

1) Color Temperature
2) R-Gain
3) G-Gain
4) B-Gain
5) R-Offset
6) G-Offset
7) B-Offset

G-Offset
B-Offset

8) Gamma : An image compensation function that controls the settings according to the video properties.

- Film : The best setting for watching a film.
- Video : The best setting for watching a TV program.
- Graphic : The best setting when you have a PC connected.

Gamma

9) DynamicBlack™ : Adjusts the brightness and contrast of the screen by adjusting the tightening thread in the optical system.

- Off : You can view the screen where the brightness is emphasized by opening the tightening thread fully.
- Manual : You can view the screen while manually controlling the iris value from minimum to maximum
- Auto : You can view a more dynamic screen as the input screens are adjusted automatically.

Dynamic Black™

10) Save : Used to save custom picture settings.

Save

11) Reset : Restores the mode settings to the factory defaults.

Reset

Size

You can select a screen size according to the type of scene.
▶ Refer to "Size Support Mode".

1) 16 : 9
2) Zoom1
3) Zoom2
4) Wide Fit
5) Anamorphic
6) 4 : 3

Position

Adjust the screen position if it is not aligned.
▶ Refer to "Position Moving Support Mode".

Digital NR

When a dotted line is displayed or the screen shakes, you can view picture in better visual quality by enabling Noise Reduction.
▶ Digital NR can only be selected in [Video], [S-Video], [Component 1, 2] and [PC] modes.

Black Level

Using the Black Level function, you can set the light level of the darkest portion of the video signal so that you can clearly see dark areas on the screen.
▶ The Black Level can only be selected in [Video], [S-Video] and [HDMI] modes.

▶ For [Video] and [S-Video] Modes
1) 0 IRE : Sets the light level of the darkest portion of the video signal to low. If the setting does not match the input signal, the dark screen looks milky-white.
2) 7.5 IRE : Sets the light level of the darkest portion of the video signal to high. If the setting does not match the input signal, the dark screen is saturated and may not display properly.

▶ For [HDMI] Mode
1) Low : Set the brightness standard for dark signals to a low setting.
If the input signal is an ' HDMI-Video ' type, unclear screens are displayed normally.
2) Normal : Set the brightness standard for dark signals to a high setting.
If the input signal is an ' HDMI-PC ' type, dark screens are displayed bright.

Color Pattern

You can filter the color of the entire screen according to your taste.

1) Off : Shows the picture in the original color.

2) Monochrome : Shows the picture in black and white by filtering out all color signals.

3) Red : Shows the picture in red by filtering out the green and blue color signals.

4) Green : Shows the picture in green by filtering out the red and blue color signals.

5) Blue : Shows the picture in blue by filtering out the red and green color signals.

Overscan

Using this function, you can cut the edge of the picture when unnecessary information, images appear on the edge of the picture.

▶ Refer to "Size Support Mode".

1) Off

2) On

1080P/24fps Mode

This function displays the full 1080P@24Hz native HD signals which have 24 frames per second with minimal scene distortion, as in a movie. Though the difference is small, this function implements the highest screen quality.

▶ You can adjust 1080P/24 Frame mode in [HDMI 1] and [HDMI 2] modes only.

1) Off : Displays scenes where 24 frames are lengthened to 60 frames. Because of this process, irregular scenes may be generated.

2) On : Displays scenes where 24 frames are lengthened to 48 frames. All scenes are displayed regularly without any irregular scenes.

Film Mode

Using this function, you can set the display mode optimized for playing movies when watching a movie. Film Mode provides optimal display settings for movies.

▶ Film Mode is only supported for [Video], [S-Video] and [Component 1, 2](480i,576i).

1) Off

2) On

| Input | Picture | Setup | Option |

Setup



* Click the Play( )/Stop( ) button in the table below to view the video file.

Screen

Adjustment	Description	Play/Stop
Install	To tailor the picture to the installation location, you can invert the projected images vertically/horizontally. 1) Front-Floor : Normal Image 2) Front-Ceiling : Horizontal/Vertical Reversed Image 3) Rear-Floor : Horizontally Reversed Image 4) Rear-Ceiling : Vertically Reversed Image	
Light Setting	Used to set the image brightness by adjusting the amount of light generated by the lamp. 1) Bright : Used to enhance the brightness in relatively bright ambient light. Since this mode increases the light level of the lamp, you may experience more noise which is produced when the projector is cooled down. 2) Theater : Using this function, you can adjust the light level of the lamp so that you can comfortably watch pictures on the screen even when watching under dark conditions. It also lowers power consumption and extends the life of the lamp.	Bright Theater
Test Pattern	Generated by the projector itself. Utilized as standard to optimize the installation of the projector. 1) Crosshatch : You can check whether the picture is distorted or not. 2) Screen Size : You can refer to picture format sizes such as 1.33 : 1 or 1.78 : 1. 3) Color Standard : You can view the difference by changing the Color Standard to SMPTE_D/HD/EBU. 4) Red : Red Screen, only for color adjustment. 5) Green : Green Screen, only for color adjustment. 6) Blue : Blue Screen, only for color adjustment. 7) White : White Screen, only for color adjustment. 8) 6500K_White : White Screen, brings out the white tones for a more real white. ▶ The Crosshatch and Screen Size patterns of this projector are provided by JKP (JK Production). ▶ The Red/Green/Blue colors of the test patterns are only for the color adjustment procedures, and may not comply with the actual colors displayed during video playback.	Crosshatch Screen Size Color Standard Red Green Blue White 6500K_White
PC	Eliminates or reduces noise that causes unstable screen quality, such as screen shaking. If the noise is not removed using Fine Adjustment, adjust the frequency to the maximum and then perform Fine Adjustment again. Only activated in the PC environment. 1) Auto Adjustment : Used to adjust frequency and phase of PC screen automatically. 2) Coarse : Used to adjust frequency when vertical lines appear on PC screen. 3) Fine : Used to fine tune the PC screen. 4) Zoom : Used to extend PC screen from the center. 5) Reset : Using this function, you can reset the PC menu settings to the factory default settings.	Auto Adjustment Coarse Fine Zoom Reset
Color Standard	You may adjust the color standard to suit the color standard of the input signal. 1) SMPTE_C : Standardized for Video Equipment by the Society of Motion Picture and Television Engineers 2) HD : High Definition, 1125 scan lines, standard definition TV submitted to the ITU-R by U.S., Japan and Canada, in 1986. 3) EBU : Regulations and standards for European Broadcasting Production and Technology, standardized by the European Broadcasting Union.	

Factory Default	Using this function, you can reset various settings to the factory default settings.	

| Input | Picture | Setup | Option |

Option





* Click the Play( )/Stop( ) button in the table below to view the video file.

Screen Adjustment	Description	Play/Stop
Language	You can select the language used for the menu screen. 1)English 6)Español 2)Deutsch 7)Nederlands 3)Français 8)Português 4)Italiano 9)中国语 5)Svenska 10)한국어	
Menu Position	You can move Menu Position up/down/left/right.	
Menu Translucency	You can set the translucency of menu. 1) Opaque 2) Low 3) Medium 4) High	
Menu Display Time	You can set the display time of the menu. 1) 5 sec 5) 90 sec 2) 10 sec 6) 120 sec 3) 30 sec 7) Stay On 4) 60 sec	

LED Indicator	You can enable or disable the operating LED's on the product. 1) Off : This mode disables the operating LED. However, the LED will come on regardless of the LED setting when the power is turned on or off or when the projector is in an abnormal state. 2) On : This mode enables the operating LED so that it can display the current operating state of the projector.
Light Effect	You can turn the LED indicators on your projector on or off according to your requirements. 1) Off : LED will not come on. 2) In Standby : Turns the LED on in standby mode. 3) In Watching TV : Turns the LED on while watching TV. 4) Always : LED will come on after you turn the TV off. Appears as an ellipse at the top at the back of your projector.
Blue screen	The Blue screen function causes the screen to change to the Blue screen if there is no signal input from the external device connected to your projector. 1) Off 2) On
Information	You can check external source signals, picture setup, PC picture adjustment and lamp use time.



Before Contacting Service Personnel

TOP
MAIN

Installation and Connection

Symptoms	Troubleshooting
No Power.	• Check the power cable connections.
I want to install my projector on the ceiling.	• The ceiling installation support is sold separately. Contact your local product distributor.
External Source can not be selected.	• Be sure that the connection cable(s) (video) is properly connected to the proper port. If the device is not connected properly, it can not be selected.

Menu and Remote Control

Symptoms	Troubleshooting
Remote control does not work.	• Be sure that the proper external source is selected. • Check the battery of your remote control. If its size is incorrect, replace it with the recommended battery size. Check whether the polarity of the installed battery is correct. • Check whether your remote control is at a right angle and at the correct distance. Remove any obstacles between your remote control and the product. • Direct lighting of 3-way light bulbs or other lighting device on the remote sensor of the projector may affect the sensitivity and cause the remote control to malfunction. • Check if the remote control battery is empty. • Check whether the LED indicator on the top of the projector is turned on.
I cannot select a menu.	• Check if the menu is displayed in gray. A gray-colored menu is unavailable.

Screen and External Source

Symptoms	Troubleshooting
Cannot see picture images.	• Be sure that the power cord of the projector is connected. • Be sure that the proper input source is selected. • Check that the connectors are properly connected to the ports at the back of the projector. • Check the Remote Control batteries. • Be sure that the <Color>, <Brightness> settings are not at their lower limit.
Poor color.	• Adjust the <Tint> and <Contrast>.
Images are not clear.	• Adjust the focus. • Check that the projection distance is either too far or too near to the screen.
Strange noise.	• If a strange sound continues, contact our service center.
The operating LED is lit up.	• Refer to Corrective Actions According to LED Indications.
Lines appear on screen.	• Because noise may occur when using your PC, adjust the frequency of the screen.
No external device screen is displayed.	• Check the operating status for the external device and check whether the

	adjustment items, such as the Brightness and the Contrast have been changed correctly in the <Mode> command screen of the Projector menu.
Only blue screen appears.	● Be sure to properly connect the external devices. Check the connection cables again.
Screen appears in black and white or odd color./ screen is too dark or bright.	● As mentioned above, check the adjustment items such as the Brightness, Contrast and Color in the menu. ● If you want to restore various settings to their factory defaults, run <Factory Default>from the menu.

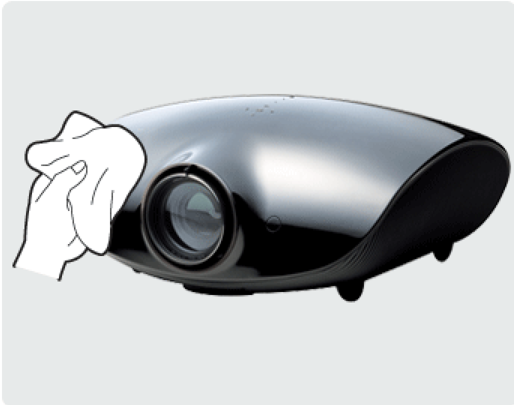


Care and Maintenance

To clean the exterior and lens of the projector

Clean the projector using a soft dry cloth.

- Do not clean the projector with flammable substances such as benzene, thinners or a wet cloth, as these may cause problems.
- Do not touch the projector with a nail or any other sharp objects, as this may scratch the surface.



TOP
MAIN

To clean the interior of the projector

For cleaning the interior of the projector, ask your Service Center or a distributor.

- Contact your distributor or a Service Center if dust or other substances are inside the projector.



Lamp Replacement

Cautions on Lamp Replacement

- The projector lamp is an expendable item. For best operating performance, replace the lamp according to the usage time. You can view the lamp usage time in the Information Display (INFO button).
- Use the recommended lamp when replacing. Lamp specifications are defined in the user's manual. Replace with the same model provided with the projector.
  - Lamp Model Name : LAMP-MERCURY-Philips
  - Lamp Manufacture : Philips Lighting
  - Lamp Life Time : 2000Hrs
  - Lamp Type : 300W UHP
- Check that the power cord is unplugged before replacing the lamp.
- Even after the power cord has been disconnected, the lamp will be hot. Allow it to cool down for at least 1 hour before changing the lamp.
- The lamp is located at the left rear of your projector.
- Before you turn the projector over to change the lamp, cover the projector with a soft cloth on a flat surface.
- Do not leave the old lamp near inflammables or in reach of children. There is a danger of burn or injury.
- Remove dirts or foreign materials around or inside the lamp unit using a proper vacuum device.

When handling the lamp, avoid touching any part of it except for the handles. If you handle the lamp incorrectly, it may affect the screen quality and shorten its lifetime.

LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL STATE OR FEDERAL LAWS.
For details see lamprecycle. org, eiae.org, or call 1-800-Samsung

Lamp Replacement Procedure

1. The lamp is very hot and operates with a high voltage. Allow it to cool down for at least 1 hour after disconnecting the power cord before changing the lamp.

2. The lamp is located at the left rear of your projector. Place your projector so that its left side is visible and then remove the screws on the lamp cover.
* Be careful your projector does not fall.



3. Open the cover by holding down (A) in the figure and pulling (B).



4. Remove the screws (A) in the figure and then hold and open (B).



5. Remove the screws as shown in the figure.



6. As shown in the figure, lift up the lamp handles by holding them and pull the lamp.



Assembling a new lamp is in the reverse order of the disassembly.

| Care and Maintenance | Contact SAMSUNG WORLDWIDE | Other | Authority |

Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products,
please contact a SAMSUNG customer care center.

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U.A.E	800-SAMSUNG(726-7864) 8000-4726	http://www.samsung.com/ae

Other

Glossary

Analog Broadcast
An existing broadcasting signal transmitted by a broadcasting station in accordance with the NTSC standard.

ANTENNA IN Port
This is the port for connecting a TV antenna using a coaxial cable. It is generally used to watch public broadcast programs.

AV Receiver
An AV Receiver provides a number of input and output interfaces for audio and video so as to enable the user to connect and use various input and output devices.

Backlight Remote Control
The buttons on the Backlight Remote Control are lit up so that users can easily press buttons on the remote control even when it is dark.

Black Level
Black Level sets the light level of the darkest portion of the video signal to match that of the display's black level capability so that users can clearly view dark visuals. If the setting does not match the input signal, the dark screen is saturated and may not display properly or the dark screen looks milky-white.

Cable Broadcast
Cable Broadcast broadcasts programs via cable instead of radio waves. To view cable broadcasts, you have to subscribe to your local cable broadcast service provider and install an additional receiver.

Color Standard
A pre-determined default color standard determined by the broadcasting standard of the corresponding country or area.

Color Temperature
Color temperature is a simplified way to characterize the spectral properties of a light source. A low color temperature implies a warmer (more yellow/red) light while a high color temperature implies a colder (more blue) light.

COMPOSITE IN Port
A COMPOSITE IN Port is a general video input port (yellow). Both chrominance and luminance are transmitted on the same 75-ohm cable.

Component Port (Green, Blue, Red)
The Component Port separately transmits the luminance signal.

Digital Broadcast
Digital Broadcast is a television broadcasting signal digitized and transmitted according to the United States terrestrial digital broadcast specifications, or ATSC.

DVD (Digital Versatile Disc)
DVD is a large capacity media disk that can save multimedia content such as video, games, audio applications, etc. using MPEG-2 video compression technology on a CD size disc.

DLP (Digital Light Processing)
DLP is a digital display technology using a DMD panel developed by TI (Texas Instruments) of the United States.

DLP HD2, DC2, DC3
This is a grade of DMD panel.

DMD (Digital Micromirror Device)

A DMD panel is an implementation of DLP technology. It consists of microscopic mirrors where each mirror represents a pixel.

External Input
External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. to the projector as a video source.

Gamma Mode
Gamma Mode compensates the video signal produced for analog display devices such as a CRT (Cathode Ray Tube) so that the video signal can be clearly displayed on a digital display device.

HDMI
▶ HDMI(High-Definition Multimedia Interface), is an interface that
enables the transmission of digital audio and video signals using a single cable.
▶ The difference between HDMI and DVI is that the HDMI device is smaller in size and has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed.

Overscan
Overscan cuts the edge of the picture when there is unnecessary information, images or noise at the edge of the picture. For extremely poor video signals, some unnecessary video signals may be displayed on the screen.

RS-232C Port (Service Input Port)
This port is provided for service purposes. This port provides data communication in accordance with the RS-232C communication standard.

S-Video IN Port
This is called super video. S-Video is a type of video signal which has the video brightness and color signal separated in order to provide a better image quality.

Satellite Broadcast
Satellite Broadcast broadcasts programs via satellite so that the program can be viewed in all area in a high visual and sound quality. Approximately 100 channels including public broadcast channels are provided. To view satellite broadcasts, you have to install an additional receiver.

5x Speed, 6 Segment Color Wheel
This is an optical part that converts white rays

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